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REMARKS

These remarks follow the order of the paragraphs of the office action. Relevant portions of the office action are shown indented and italicized.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 14 October 2005 have been fully considered but they are not persuasive.

With respect to the rejection under 35 U.S.C. § 112, second paragraph, applicant argues that the amendments to the claims resolves all the issues and overcomes this rejection. However, no amendment have been presented with respect to the issues pointed out in claims 45 or 67, and so the rejection of these claims under 35 U.S.C. § 112, second paragraph is maintained.

With respect to the rejection of claims 5-7, 13, 46, 48, 61-62 and 81 as being anticipated by Braudaway et al. '759 under 35 U.S.C. 102(e), while applicant quotes the previous office action in detail, and has inserted an number of statements that read "In response applicants state that," these statement are not followed by any arguments pointing out any alleged errors in the grounds of rejection set forth in the previous action. Because applicant's response does not provide any such argument, this grounds of rejection is maintained.

In response, the applicants respectfully state that although applicants do not agree with the statement above, in order to bring this application quickly to allowance claim 5 is herewith amended to include all the limitations of objected-to claim 8. Claims 6 and 8 being incorporated into claim 5, are canceled. This brings claim 5 to allowance. Claims 7, 9 and 61 which depend on claim 5 are also allowable at least because each ultimately depends on allowable claim 5.

Claim 62 is amended to depend on allowable claim 5 rather than canceled claim 6, and is allowable.

Claims 13, 46, 48 and 81 are canceled.

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1 With respect to the rejection of claims 64-66 under 35 U.S.C. § 102(e) as anticipated
2 by Wang '086, applicant argues that if a blurring filter were applied to a halftone image
3 as in the present invention, the method of Wang '086 would be rendered ineffective.
4 However, while this might be true, applicant has failed to clearly point out how the
5 claimed invention distinguishes from Wang '086. Specifically, each element of claims
6 64-66 has been mapped to elements of Wang '086 in the grounds of rejection and
7 applicant has failed to point out any errors in this analysis of the claim language and/or
8 prior art. Since applicant has not specifically identified any claim language nor showed
9 how the prior art elements identified in the rejection are not equivalent to those
10 stipulated by the claimed invention, applicants arguments are not persuasive in showing
11 that the invention, as defined by the language of claims 64-66, is not anticipated by Wang
12 '086

13 In response, the applicants respectfully state that although applicants do not agree with the
14 statement above, in order to bring this application quickly to allowance claims 64-66 are
15 canceled.

16 With respect to the obviousness-type double patenting rejection of claims 5 and 61
17 based upon claim 2 of Braudaway '759 applicant argues that the '759 patent is directed
18 towards a visible watermark, while the instant invention is directed towards an invisible
19 watermark. However, neither claim 5 nor claim 61 includes any language that defines the
20 watermark as being invisible, so that these claims do not define subject matter that is not
21 patentably distinct from that claimed in the '759 patent.

22 In response, the applicants respectfully state that although applicants do not agree with the
23 statement above, in order to bring this application quickly to allowance claim 5 is herewith
24 amended to include all the limitations of objected-to claim 8. This brings claim 5 to allowance.
25 Claim 61 which depends on claim 5 is also allowable at least because it depends on allowable
26 claim 5.

27 With respect to the obviousness-type double patent rejections in general, applicant
28 expresses some confusion regarding the obviousness statements presented in the previous
29 action. As a clarification, it is noted that the claims of the instant application are
30 generally anticipated by the claims of the various commonly-owned patents, in that every
31 limitation of the instant claims is variously set forth in the patented claims. Because
32 anticipation is the ultimate or epitome of obviousness (see In re Kalm 154 (USPQ 10
33 (CCPA 1967), In re Daily 178 USPQ 293 (CCPA 1973), and In re Pearson 181 USPQ
34 641 (CCPA 1974)) the instant claims are obvious in view of the patented claims because
35 they are anticipated, and none of the claims in the instant application includes any

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1 *language that precludes the possibility of the additional features stipulated in the claims*
2 *of the patents.*

3 In response, the applicants respectfully state that although applicants do not agree with the
4 statement above, in order to bring this application quickly to allowance independent claims are
5 amended herewith to include material from objected-to claims, as will be pointed out in the
6 following remarks.

7 ***Claim Rejection -35 U.S.C § 112***

8 *2. The following is a quotation of the second paragraph of 35 U.S.C. 112:*
9 *The specification shall conclude with one or more claims particularly pointing out and*
10 *distinctly claiming the subject matter which the applicant regards as his invention.*

11 *3. Claims 45 and 67 are rejected under 35 U.S.C. § 112, second paragraph, as being*
12 *indefinite for failing to particularly point out and distinctly claim the subject matter*
13 *which applicant regards as the invention.*

14 *In claim 45, the recitation of "said pixel" at line 7 is ambiguous because it is*
15 *unclear which of the previously recited "plurality of pixels" is referred to by this*
16 *recitation. In addition, the recitation of "said brightness data" at line 12 is indefinite*
17 *because none of the preceding claim language recites or defines any such brightness*
18 *data, so that it is unclear what data is referred to and further defined by this recitation. It*
19 *is suggested that amending claim 45 to incorporate changes corresponding to those made*
20 *in claim 1 would resolve these issues.*

21 *The recitation of "the step of aligning" at line 1 of claim 67 is ambiguous because it*
22 *is unclear which recitation of the parent claim this language is meant to refer to and*
23 *further define. Specifically, claim 15 recites "aligning" at line 9 (step(b)) and at line 16*
24 *(step (e)), so that the further limitation of claim 67 cannot be clearly understood.*

25 In response, the applicants respectfully state that claim 45 is amended to overcome the rejection
26 under -35 U.S.C § 112. The words 'said pixel' are changed to 'each of said pixels', the words
27 'said brightness data' are changed to 'brightness data'. This overcomes the rejection under -35
28 U.S.C § 112 of claim 45, which becomes allowable.

29 The limitation in claim 67 is corrected to overcome the rejection(s) under 35 U.S.C. §112, 2nd
30 paragraph and inserted into claim 15. Claim 67 is canceled. This brings claim 15 and all claims
31 that depend thereupon to allowance.

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Claim Rejections 35 U.S.C. §102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless—
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this sub-subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 5-7, 13, 46, 48, 61-62 and 81 are rejected under 35 U.S.C. § 102(e) as being anticipated by Braudaway et al. '759 (US 5,530,759 A). The applied reference has a common inventor and assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. § 102(e). this rejection under 35 U.S.C. § 102(e) might be overcome either by a showing under 37 CFR § 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 C.F.R. § 1.131.

With respect to claim 5, Braudaway et al. '759 teaches a method for imparting a watermark onto a digitized image (column 1, lines 7-9) comprising the steps of providing said digitized image comprising a plurality of pixels (column 4, lines 10-12), wherein each of said pixels includes brightness data that represents a brightness of at least one color (column 4, lines 60-66; each pixel represents the brightness of at least one and up to three colors); and altering said brightness data associated with a plurality of said pixels (column 6, lines 38-40) maintaining the hue and saturation of said pixel (column 1, lines 66-67; the watermarking preserves the chromaticities of the original image; column 3, lines 65-66; the color components can represent intensity/saturation/hue so that preserving the chromaticities inherently requires maintaining the hue and saturation components) Furthermore, Braudaway et al. '759 teaches a computer program product comprising a computer useable medium having computer readable program code means embodied therein (114 in Figure 1) for causing a watermark to be imparted into an image, the computer readable program code means in said computer program product comprising computer program code means (column 4, lines 21-22 and 30-37) for causing a computer to effect the steps of providing said digitized image comprising a plurality of pixels (column 4, lines 10-12), wherein each of said pixels includes brightness data that represents a brightness of at least one color (column 4, lines 60-66; each pixel represents the brightness of at least one and up to three colors); and altering said brightness data associated with a plurality of said pixels (column 6, lines 38-40) maintaining the hue and

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1 saturation of said pixel (column 1, lines 66-67; the watermarking preserves the
2 chromaticities of the original image; column 3, lines 65-66; the color components can
3 represent intensity/saturation/hue, so that preserving the chromaticities inherently
4 requires maintaining the hue and saturation components), as further stipulated by claim,
5 46.

6 In addition, Braudaway et al. '759 also teaches that the image has a plurality of
7 rows and columns of pixels (column 4, lines 10-11; the image is generated by scanning
8 photographs or paintings, and therefore is inherently a two-dimensional array having
9 plural rows and columns) having at least one brightness (column 4, lines 60-66), and that
10 the altering includes adding to or subtracting from the brightness value of a pixel
11 (column 6, lines 58-60) a different small random number (column 5, lines 41-47)
12 corresponding to that pixel, as farther required by claim 6; and that the amount added to
13 or subtracted from the image is proportional to the original pixel brightness (i.e., a
14 scaling factor, column 6, lines 57-58), as defined in claim 7. Finally, Braudaway et al.
15 '759 further teaches an apparatus for imparting a watermark on to a digitized image,
16 comprising mechanisms for performing the methods of claims 5 and 6 (shown generally
17 in Figure 1, for example), as variously stipulated by claims 61 and 62.

18 In response, the applicants respectfully state that although applicants do not agree with the
19 statement above, in order to bring this application quickly to allowance, claim 5 is herewith
20 amended to include all the limitations of objected-to claim 8. This brings claim 5 to allowance.

21 Claim 6 is canceled.

22 Claim 7 which depends on claim 5 is also allowable at least because it depends on allowable
23 claim 5.

24 With respect to claim 13, Braudaway et al. '759 teaches a method for generating a
25 watermarked image (column 1, lines 7-9), the method comprising imparting a watermark
26 onto a digitized image having a plurality of original pixels, each of said pixels having at
27 least one original pixel brightness value (column 4, lines 60-66); providing said digitized
28 watermarking plane comprising a plurality of watermarking elements (column 4, lines
29 52-55), each element having a watermark brightness multiplying factor (column 5, lines
30 6-15) and having a one-to-one positional correspondence with said original pixels
31 (column 5, lines 8-10 and 12-14; the watermark "pixels" correspond to pixels in the
32 original image); and producing a watermarked image by multiplying said original
33 brightness of each of said original pixels by said brightness multiplying factor of a
34 corresponding one of said watermark elements (column 6, line 7).

35 Furthermore, Braudaway et al. '759 teaches a computer program product comprising
36 a computer useable medium having computer readable program code means embodied

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1 therein (114 in Figure 1) for causing generation of a 'watermarked image, the computer
2 readable program code means in said computer program product comprising computer
3 program code means (column 4, lines 21-22 and 30-37) for causing a computer to effect
4 the steps of imparting a watermark onto a digitized image having a plurality of original
5 pixels, each of said pixels having at least one original pixel brightness value (column 4,
6 lines 60-66); providing said digitized watermarking plane comprising a plurality of
7 watermarking elements (column 4, lines 52-55). each element having a watermark
8 brightness multiplying factor (column 5, lines 6-15) and having a one-to-one positional
9 correspondence with said original pixels (column 5, lines 8-10 and 12-14; the watermark
10 "pixels" correspond to pixels in the original image); and producing a watermarked
11 image by multiplying said original brightness of each of said original pixels by said
12 brightness multiplying factor of a corresponding one of said watermark elements (column
13 6, line 7). Finally, Braudaway et al. '759 further teaches an apparatus for generating a
14 watermarked image, comprising mechanisms for performing the method of claim 13
15 (shown generally in Figure 1, for example), as farther stipulated by claim 81.

16 In response, the applicants respectfully state that although applicants do not agree with the
17 statement above, in order to bring this application quickly to allowance, claim 13 is canceled.

18 6. Claims 64-66 are rejected under 35 U.S.C. § 102(e) as being anticipated by Wang
19 '086 (US 6,263,086 B1).

20 Wang '086 teaches a method for detecting a watermark in a marked image (Abstract,
21 lines 1-3), said method comprising providing said marked image having said watermark
22 (S1100 in Figure 7); processing the marked image and producing a screened image
23 (2412 in Figure 5; which is part of the global auto-correlation S1200); altering the
24 screened marked image employing a blurring filter in producing a filtered image (i.e.,
25 determining the mean (average) values; 2434 in Figure 6; which is a part of piece-wise
26 auto-correlation S1500); and employing a watermark detection method upon said filtered
27 image to detect said watermark (S1700 in Figure 7), as variously required by claims 64
28 end 65. Furthermore, Wang '086 also teaches producing a derivative image y screening,
29 printing and scanning the marked image (column 3, lines 30-46), as further required by
30 claim 66.

31 Because the priority applications do not include any disclosure describing the use of
32 the blurring filter stipulated by these claims, the priority applications do not meet the
33 requirements of 35 U.S.C. § 112, first paragraph, in that they fail to show that applicant
34 was in possession of the invention now claimed at the time the parent priority
35 applications were filed. Therefore, claims 64-66, which each variously requires the
36 blurring filter, are not entitled to the benefit of the filing date of the priority applications,
37 and the effective filing date for these claims is considered to be 16 August 2001.

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In response, the applicants respectfully state that although applicants do not agree with the statement above, in order to bring this application quickly to allowance, claims 64-66 are canceled.

Double Patenting

7. Claim 57 objected to under 37 C.F.R. § 1.75 as being a substantial duplicate of claim 52.

When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See M.P.E.P. § 706.03(k).

8. The non-statutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper time-wise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 C.F.R. § 1.321(c) may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 C.F.R. § 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 C.F.R. § 3.73(b).

In response, the applicants respectfully state that claim 57 is amended to correct its dependence from claim 39 to allowable claim 44. This overcomes the double patenting rejection, and claim 57 is allowable.

9. Claims 5 and 61 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 5,530,759 to Braudaway et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because the invention defined by the instant claims would have been obvious to one of ordinary skill in the art in view of the claims of the '759 patent. Specifically, claim 2 of the '759 patent imparts a watermark onto a digitized image (see the preamble of claim 1, from which claim 2 depends) by providing a digitized image (line 3 of claim 1 in the '759 patent) comprised of a plurality of pixels (while not explicitly defined in the claims of the '759 patent, a digital image implies a

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plurality of pixels defining the content of the image), wherein each of said pixels includes brightness data that represents a brightness of at least one color (line 6 of claim 1 and lines of claim 2 in the '759 patent; the pixels of the image represent brightness and color) and altering said brightness data associated with a plurality of said pixels ("modifying the corresponding pixel of the original image by changing the brightness"; see the '759 patent, claim 2, lines 4-5) maintaining the hue and saturation of said pixel ('759 patent, lines 5-6, "without changing the chromaticities"; one of ordinary skill in the art would recognize that hue and saturation represent the chromaticity of the image, so that not changing the chromaticity requires maintaining hue and saturation). While claim 2 of the '759 patent includes additional features or limitations not stipulated by claim of the instant application, the use of the transitional term "comprising" in the instant claim fails to preclude the presence of the additional features, so that the instant claim is broadly encompassed by claim 2 of the '759 patent, and the two claims are not patentably distinct. In addition, an apparatus with mechanisms for implementing the method of claim 2 in the '759 patent would have been readily apparent to one of ordinary skill in the art, so that the invention defined by claim 61 in the instant application would have been obvious to one of ordinary skill in view of claim 2 in the '759 patent.

In response, the applicants respectfully state that although applicants do not agree with the statement above, in order to bring this application quickly to allowance, claim 5 is herewith amended to include all the limitations of objected-to claim 8. This brings claims 5 and 61 to allowance.

10. Claims 1, 13-14, 45, 48-49, 60 and 81-82 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 18 and 21 of U.S. Patent US. 5,825,892 to Braudaway et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because the invention defined by the claims of the '892 patent (as set forth in the Reexamination Certificate) broadly encompass or suggest each of the limitations of the instant claims. Specifically, with respect to claims 1 and 13 of the instant application, claim 18 of the '892 patent defines a digitized image having a plurality of pixels representing brightness values (preamble of claim 13 in the '892 patent, from which claim 18 depends), the pixels having at least one color component (i.e., red, green, or blue; claim 18 of the '892 patent), a digitized watermark plane with a plurality of watermark elements having a one-to-one correspondence with the pixels of the digitized image (first element of claim 13 in the '892 patent) and multiplying the brightness data of each pixel by a corresponding multiplying factor from the watermarking plane (second element in claim 13 of the '892 patent), said watermark having an invisibility classification (last line in claim 13 of the '892 patent). So that claims 1 and 13 of the instant application are not patentably distinct from claim 18 of the '892 patent. Similarly, claim 21 of the '892 patent defines substantially similar limitations to claim 14 of the instant application, except that claim 21 of the '892 patent stipulates that the watermarking plane include a plurality of elements each having a brightness multiplying value, while claim 14 of the

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instant application requires that these elements be brightness adding or subtracting values. However, it is a well established mathematical principle that an adjustment of a value by a multiplying factor can also be accomplished by adding or subtracting an appropriate percentage value that corresponds to the multiplying factor. Therefore, it would have been readily obvious to one of ordinary skill in the art that the adding or subtracting factors of the instant claims could be substituted for the multiplying factor of the patented claims. Therefore the invention defined by claim 14 in the instant application would have been obvious to one of ordinary skill in the art.

Furthermore the implementation of the invention defined in the claims of the '892 patent using apparatus and/or computer program code would have been readily apparent to one of ordinary skill in the art, so that the invention variously defined in claims 45, 48-49, 60 and 81-82 of the instant application is also not patenably distinct from that set forth in claims 18 and 21 of the '892 patent.

In response, the applicants respectfully state that although applicants do not agree with the statement above, in order to bring this application quickly to allowance, claims are amended.

Claim 1 is amended to include the limitation of objected-to claim 2. This brings claim 1 and all claims that depend thereupon to allowance.

Claims 13 and 14 are canceled.

Claim 45 is amended to include the limitation of objected-to claim 17. This brings claim 45 and all claims that depend thereupon to allowance.

Claims 48-49 are canceled.

Claim 60 depends on allowable claim 1, and is allowable at least because it depends on an allowable claim.

Claims 81-82 are canceled.

11. Claims 15, 50 and 83 are rejected under the judicially created doctrine of obviousness- type double patenting as being unpatentable over claims 1 and 17 of U.S. Patent No. 6,577,744 to Braudaway et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because the invention defined

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by the claims of the instant application would have been obvious to one of ordinary skill in the art in view of the invention defined by the claims in the '744 patent. Specifically, each of the limitations of claims 15 and 50 of the instant application is substantially identically set forth in claims 1 and 17 of the '744 patent, except that the patent stipulates that the watermarking plane include a plurality of elements each having a brightness multiplying value, while the claims of the instant application requires that these elements be brightness adding and/or subtracting values. However, it is a well established mathematical principle that an adjustment of a value by a multiplying factor can also be accomplished by adding or subtracting an appropriate percentage value that corresponds to the multiplying factor. Therefore, it would have been readily obvious to one of ordinary skill in the art that the adding or subtracting factors of the instant claims could be substituted for the multiplying factor of the patented claims. Therefore the invention defined by claims 15 and 50 in the instant application would have been obvious to one of ordinary skill in the art in view of claims 1 and 17 of the '744 patent. Furthermore, the implementation of the invention defined in the claims of the '744 patent using an apparatus would have been readily apparent to one of ordinary skill in the art, so that the invention variously defined in claim 83 of the instant application is also not patentably distinct from that set forth in claims 1 and 17 of the '744 patent.

In response, the applicants respectfully state that although applicants do not agree with the statement above, in order to bring this application quickly to allowance, claims 15 is amended to include the limitation of claim 67 in a manner that overcomes the rejection under 35 U.S.C. §112, 2nd paragraph, and claim 67 is inserted into claim 15. This brings claim 15 and all claims that depend thereupon including claim 83 to allowance.

Claims 50 is canceled.

Allowable Subject Matter

12. Claims 12, 16, 18-44, 51-56, 58-59, 68-73, 75-80 and 84-90 are allowed.

13. Claims 2-4 and 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In response, the applicants respectfully state their appreciation for the allowance of claims 12, 16, 18-44, 51-56, 58-59, 68-73, 75-80 and 84-90.

14. Claim 67 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. §112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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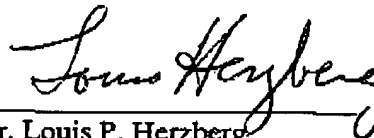
1 In response, the applicants respectfully state that the limitation of claim 67 is corrected to
2 overcome the rejection(s) under 35 U.S.C. §112, 2nd paragraph and inserted into claim 15. This
3 brings claim 15 and all claims that depend thereupon to allowance.

4 Thus, this amendment bring the application to allowance of all claims not canceled. The
5 canceled claims are canceled without prejudice.

6 Please charge any fee necessary to enter this paper to deposit account 50-0510.

7 Respectfully submitted,

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